

Remarks:

In the Office Action mailed on January 25, 2007, the Examiner rejected Claims 1-27 and Claims 29-31. Claim 28 was withdrawn by the Examiner for being an improper multiply dependent claim. Claims 1- 22, 24 - 26, and 28 - 31 are amended herein. Claims 1-31 are now pending in the application.

In the Specification

Applicants have amended the Specification to correct several erroneous figure references. An examination of the figures and the text will reveal that as amended the figure references are what was originally intended. Accordingly, no new matter has been added.

Claim withdrawal

Claim 28 was withdrawn from consideration as being an improper multiply dependent claim. Applicants have amended Claim 28 to correct the dependency. Accordingly, Applicants respectfully request reinstatement of Claim 28 and consideration of the claim.

Claim Rejection 35 USC 112, second paragraph

Claims 1-27, and 29-31 stand rejected under 35 USC 112, second paragraph for failing to particularly point out and distinctly claim the subject matter of the invention.

The Examiner made the observation that the claims are “generally narrative and indefinite, failing to conform with current U.S. Practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.” Office Action, Numbered Paragraph 4. Applicants have endeavored to correct such errors and respectfully request the withdrawal of that ground of rejection.

Alternatively, Applicants respectfully request that the Examiner provide at least one example of such problems with the claims.

Claims 1, 4, 5, 7, 8, 11, 12 and 13 were rejected for specific cases of failing to provide antecedent basis, and claims 2-3, 6, 9-10, 14-27, and 29-31 were rejected as inheriting such defects. Applicants have amended the claims to remove the antecedent basis problems. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of the claims.

35 USC 102

Claims 1-2, 11, 13 and 23 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ban (WO 94/20906 hereinafter “Ban”). Applicants have amended the claims to more clearly recite the subject matter of the invention. To the extent the Examiner believes the rejection is applicable to the claims as amended, Applicants traverse the rejection.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Manual of Patent Examining Procedure (Eighth) § 2131 (2005) (quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987)). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Id.* (quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989)). That standard cannot be met with Ban.

Independent Claims 1, 11, 12, and 13 each recite “associating simultaneously and permanently at least two physical areas of said memory, called mirror areas, with a same logical area for storing a content” (Claim 1 and analogous in the other independent claims). This element, at least, is not taught or suggested by Ban.

An advantage of the claimed invention is to ease the management of the link between logical and physical addresses. In particular, since a same logical area is permanently associated with several physical areas, the link management can be done through a single data: a counter or a bit field. Application, page 2, [0034], [0035] & [0037]. The present invention does not require the step of changing the association between a logical area and a set of physical areas.

Cited reference Ban relates a virtual mapping system that provides a dynamic link between a list of logical addresses and the associated physical addresses in flash memory. A dedicated table allows converting virtual addresses into physical addresses. According to Ban, a virtual address is mapped to a set of physical addresses called a *unit*. When all physical addresses of a unit have been used, a transfer is performed in a “transfer unit” that becomes the unit link to the virtual address. (See Ban page 9, line 24 to page 10 line 21 and Figure 7). Thus the link between a virtual address and a set of physical addresses is temporary.

Ban does not teach or suggest a permanent coupling of at least two physical areas with a same logical area. Accordingly, Claims 1, 11, 12, and 13 are not anticipated by Ban and are patentable over Ban.

35 USC 103(a)

Claims 3, 7-8, 18, 24, and 29 stand rejected as unpatentable over Ban in view of Assar et al. (WO 95/10083 hereinafter “Assar”), Claims 4 and 25 stand rejected as unpatentable over Ban in view of Mennecart (WO 01/88926 hereinafter “Mennecart”), Claims 5 and 26 stand rejected as unpatentable over Ban in view of Hazen et al. (WO 99/35650 hereinafter “Hazen”), Claims 6 and 25 stand rejected as unpatentable over Ban in view of Hazen in view of Lipovski (U.S. Pat. No 5,758,148 hereinafter “Lipovski”), Claims 9-10 and 30-

31 rejected as unpatentable over Ban in view of Kuo (U.S. Pat. No. 4,763,305 hereinafter “Kuo”), Claim 12 stands rejected as unpatentable over Ban in view of Robinson et al. (U.S.Pat. No. 5,375,222 hereinafter “Robinson”), Claims 14-17 stand rejected as unpatentable over Ban in view of Hazen in view of Assar, Claims 19-20, and 22 stand rejected as unpatentable over Ban in view of Hazen in view of Kuo, Claim 21 stands rejected as unpatentable over Ban in view of Assar in view of Kuo. To the extent the Examiner believes the rejection is applicable to the claims as amended, Applicants traverse the rejection.

These claims all depend from Claims 1 or 13. Thus, these dependent claims incorporate the limitations of Claims 1 and 13 and provide further combinations by virtue of their own recitations.

As discussed herein above, Claims 1 and 13 both recite “associating simultaneously and permanently at least two physical areas of said memory, called mirror areas, with a same logical area for storing a content” (Claims 1 and 13) and this limitation is neither taught nor suggested by Ban.

Like Ban, Assar fails to teach or suggest “associating simultaneously and permanently at least two physical areas of said memory, called mirror areas, with a same logical area for storing a content.” On the contrary “Assar” discloses algorithms for associating a virtual address and a physical address with a map.

Assar aims at decreasing the number of erase/write cycles in memory and does not disclose nor suggest the invention. However, that does not address the linking of physical and logical addresses. Thus, it is not surprising that Assar fails to teach or suggest at least that element from Claims 1 and 13.

While Mennecart discloses a method of processing a write command by using a buffer, Mennecart, like Ban, does not teach or suggest “associating

simultaneously and permanently at least two physical areas of said memory, called mirror areas, with a same logical area for storing a content.”

While Hazen discloses a method of processing a write command by using a buffer, Hazen, like Ban, does not teach or suggest “associating simultaneously and permanently at least two physical areas of said memory, called mirror areas, with a same logical area for storing a content.”

While Lipovski the use of several banks and a method of switching to another bank when the active bank reaches its capacity, Lipovski, like Ban, does not teach or suggest “associating simultaneously and permanently at least two physical areas of said memory, called mirror areas, with a same logical area for storing a content.”

Kuo, like Ban, does not teach or suggest “associating simultaneously and permanently at least two physical areas of said memory, called mirror areas, with a same logical area for storing a content.” On the contrary “Kuo” discloses a method for optimizing the write operation by reading the previously recorded data.

While Robinson discloses a card comprising an electronic module having information process means and a flash memory, Robinson, like Ban, does not teach or suggest “associating simultaneously and permanently at least two physical areas of said memory, called mirror areas, with a same logical area for storing a content.”

Thus, each of these cited references fail to teach or suggest at least one element of Claims 1 and 13.

Applicants reserve the right to challenge the appropriateness of combining the above cited references in any combination. However, even if such combinations are applied, because each of the references fail to teach or suggest “associating simultaneously and permanently at least two physical areas of said memory, called mirror areas, with a same logical area for

storing a content” (Claims 1 and 13), such combinations would fail to include at least that element of Claims 1 and 13, respectively.

“To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MANUAL OF PATENT EXAMINING PROCEDURE (EIGHTH) § 2143.03. Thus, because the offered combinations all fail to teach or suggest “associating simultaneously and permanently at least two physical areas of said memory, called mirror areas, with a same logical area for storing a content”, no *prima facie* case of obviousness can be established using the cited prior art references, whether taken singly, in the combinations proposed by the Examiner, or in any other combination with respect to the independent claims 1 and 13. The various dependent claims depend from Claims 1 and 13, respectively, provide further unique and non-obvious combinations, and are therefore patentable, at least, for the reasons given in support of Claims 1 and 13 and by virtue of such further combinations.

“If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent.” *In re Lowry*, 32 F.3d 1579, 1584 (Fed. Cir. 1994) (quoting *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992)). Thus, for the reasons given above, Applicants respectfully request withdrawal of the rejection of the claims and their early allowance.

CONCLUSION

It is submitted that all of the claims now in the application are allowable. Applicants respectfully request consideration of the application and claims and its early allowance. If the Examiner believes that the prosecution of the application would be facilitated by a telephonic interview,

Applicants invite the Examiner to contact the undersigned at the number given below.

Applicants respectfully request that a timely Notice of Allowance be issued in this application.

Respectfully submitted,

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